



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/578,408

05/05/2006

Isao Suzuki

Q94708

1650

23373 7590 11/25/2008
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

ARCIERO, ADAM A

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/578,408 | Applicant(s) SUZUKI ET AL. | |
| | Examiner ADAM A. ARCIERO | Art Unit 1795 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/31/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

BATTERY

Examiner: Adam Arciero S.N. 11/578,408 Art Unit: 1795 November 18, 2008

DETAILED ACTION

1. The Applicant's amendment filed on August 26, 2008 was received. Claims 1-11 were cancelled. New claims 12-21 have been added.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on March 11, 2008.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 12-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to Claims 12 and 16-17, the term "flexible" is a relative term which renders the claims indefinite. The term "flexible" is not defined by the claims, the specification does not provide a

Art Unit: 1795

standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See MPEP 2173.05(b). For the interest of compact prosecution, claim 1 is examined as reciting "...said battery case is composed of a sheet..."

Claims 13-15 and 18-21 are also rejected for depending off of independent claims 12 and 17.

Claim Rejections - 35 USC § 102

6. The claim rejections under 35 U.S.C. 102(b) as anticipated by HATAZAWA et al. on claims 1-11 are withdrawn, because claims 1-11 have been cancelled.

7. The claim rejections under 35 U.S.C. 102(b) as anticipated by KODAMA on claims 1 and 11 are withdrawn, because claims 1-11 have been cancelled.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

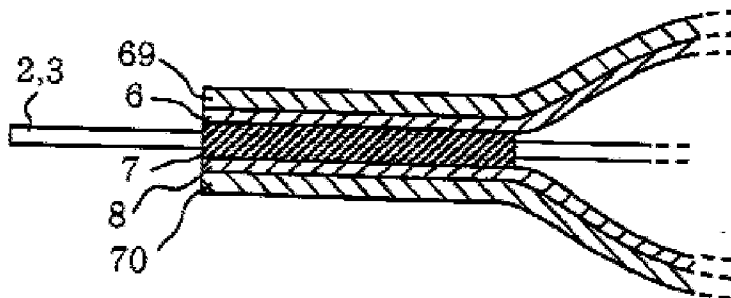
Art Unit: 1795

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 12-15 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over HANAFUSA et al. (US 2001/0051298 A1) in view of TERAHARA et al. (US 6,379,846 B1).

As to Claims 12-15, 17, 19 and 21, HANAFUSA et al. discloses a battery comprising a cathode, an anode and a separator accommodated in a battery case (Abstract). Said battery case is composed of a metallic foil (flexible sheet) **69,70** and at least part of the power generating element is covered with a cover member **6,8** in said battery case **69,70** (pg. 12, [0221] and Fig. 37). Said cathode and anode comprise respective lead terminals **2,3** (Fig. 37). Said cover member **6,8** comprises two covers **6,8** which face each other (superimposed) (Fig. 37).

FIG.37



HANAFUSA et al. does not expressly disclose wherein said anode and cathode comprise non-coated portions and wherein said cover member **6,8** covers said non-coated portions.

However, TERAHARA et al. teaches of a nonaqueous electrolyte battery which comprises an anode sheet and a cathode sheet. The end parts of said anode and cathode comprise a non-coated part to which a nickel ribbon (for the anode) and an aluminum ribbon (for the cathode) (terminal leads) is welded to so as to provide a lead body for the emergence of current (col. 10, lines 30-46). At the time of the invention, it would have been obvious to one of ordinary skill in the art to provide a non-coated portion at the end of the cathode and anode of the battery of HANAFUSA et al. because TERAHARA et al. teaches that the terminal leads can be welded thereby giving an emergence of current from the battery (col. 10, lines 30-46). The non-coated portion of the battery of HANAFUSA et al. in view of TERAHARA et al. is covered by the cover member **6,8** because the cover member encompasses the entire power generating element.

As to Claim 18, HANAFUSA et al. teaches that said covers **6,8** encompass (cup) the power generating element, therefore said covers **6,8** are cup-shaped (Fig. 37).

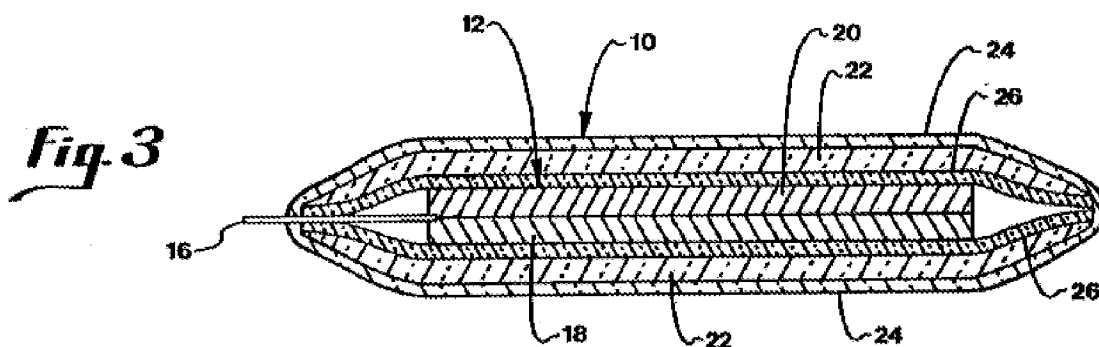
As to Claim 20, HANAFUSA et al. teaches the battery according to claim 18, wherein open sides of said two covers **6,8** face each other, while holding said lead terminal **2,3** between them (Fig. 37).

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over HANAFUSA et al. (US 2001/0051298 A1) in view of TERAHARA et al. (US 6,379,846 B1) as applied to claims 12-15 and 17-18 above, and further in view of LAKE (US 5,326,652).

As to Claim 16, the combination of HANAFUSA et al. and TERAHARA et al. does not expressly disclose wherein the superimposed portion of said two covers faces the non-coated

Art Unit: 1795

portion and faces a superimposed portion of the flexible sheet, on the opposite side to the non-coated portion. However, LAKE teaches a battery package **10** comprising a flexible base film **22** that covers and encloses the battery **12** and a flexible layer **24** of an inorganic material deposited on said base film **22** to enclose and seal the battery **12** (col. 3, lines 42-51 and Fig. 3). As can be seen in Figure 3 (shown below), the superimposed portion of said covers (base film) **22** faces the non-coated portion with one side. The opposite side of said superimposed portion of said covers **22** faces a superimposed portion of said flexible sheet **24**.



At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the battery packaging of HANAFUSA et al. and TERAHARA et al. so as to have a superimposed portion of said two covers **22** facing both a non-coated portion and a superimposed portion of a flexible sheet **24**, because LAKE teaches that such a flexible composite package is impervious to gas and water vapor transmission as well as being able to be shaped to conform to an irregular or curved surface (col. 2, lines 47-54).

Response to Arguments

12. Applicant's arguments filed on August 26, 2008 have been fully considered but are moot in view of the new ground(s) of rejection as necessitated by amendment.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM A. ARCIERO whose telephone number is (571)270-5116. The examiner can normally be reached on Monday to Friday 8am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795